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| APPLICATION NO | D.       | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO |
|----------------|----------|-------------|----------------------|-------------------------|-----------------|
| 10/507,028     |          | 05/17/2005  | Rajesh R Naik        | P07564US03/BAS          | 7699            |
| 881            | 7590     | 06/30/2006  |                      | EXAMINER                |                 |
|                |          | SON PLLC    | STEELE, AMBER D      |                         |                 |
| SUITE 90       |          | FAX STREET  | ART UNIT             | PAPER NUMBER            |                 |
| ALEXAN         | DRIA, VA | A 22314     | 1639                 |                         |                 |
|                |          |             |                      | DATE MAILED: 06/30/2006 |                 |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   | Application No.   | Applicant(s)  |  |  |  |  |  |  |
|---|---|---|--|--|--|--|--|--|
|   | 10/507,028  | NAIK ET AL.   |  |  |  |  |  |  |
| Office Action Summary   | Examiner  | Art Unit  |  |  |  |  |  |  |
| •   | Amber D. Steele   | 1639  |  |  |  |  |  |  |
| The MAILING DATE of this communication ap<br>Period for Reply   | pears on the cover sheet with the c   | orrespondence address   |  |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D.  - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period.  - Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b). | DATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be timwill apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE | I.  lely filed  the mailing date of this communication.  D (35 U.S.C. § 133). |  |  |  |  |  |  |
| Status  |   |   |  |  |  |  |  |  |
| 1) Responsive to communication(s) filed on  |   |   |  |  |  |  |  |  |
|   | —·<br>s action is non-final.  |   |  |  |  |  |  |  |
| 3) Since this application is in condition for allowa  |   | secution as to the merits is  |  |  |  |  |  |  |
|   | closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.   |   |  |  |  |  |  |  |
| Disposition of Claims   |   |   |  |  |  |  |  |  |
| 4)⊠ Claim(s) <u>1-32</u> is/are pending in the application.   |   |   |  |  |  |  |  |  |
|   | 4a) Of the above claim(s) is/are withdrawn from consideration.  |   |  |  |  |  |  |  |
| 5) Claim(s) is/are allowed.   |   |   |  |  |  |  |  |  |
| 6) Claim(s) is/are rejected.  | Claim(s) is/are rejected.   |   |  |  |  |  |  |  |
| 7) Claim(s) is/are objected to.   | Claim(s) is/are objected to.  |   |  |  |  |  |  |  |
| 8) Claim(s) <u>1-32</u> are subject to restriction and/or   | B) Claim(s) 1-32 are subject to restriction and/or election requirement.  |   |  |  |  |  |  |  |
| Application Papers  |   |   |  |  |  |  |  |  |
| 9) The specification is objected to by the Examine  | er.   |   |  |  |  |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  |   |   |  |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |   |   |  |  |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  |   |   |  |  |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  |   |   |  |  |  |  |  |  |
| Priority under 35 U.S.C. § 119  |   |   |  |  |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> </ul>  |   |   |  |  |  |  |  |  |
| <ul> <li>2. Certified copies of the priority documents have been received in Application No</li> </ul>  |   |   |  |  |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in Application No  |   |   |  |  |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).   |   |   |  |  |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.  |   |   |  |  |  |  |  |  |
|   |   |   |  |  |  |  |  |  |
| Attachment(s)   |   |   |  |  |  |  |  |  |
| 1) Notice of References Cited (PTO-892)   | 4) Interview Summary  | (PTO-413)   |  |  |  |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Da   | ate   |  |  |  |  |  |  |
| 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date  5) Notice of Informal Patent Application (PTO-152)  6) Other:  |   |   |  |  |  |  |  |  |

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### **DETAILED ACTION**

## Status of the Claims

1. Claims 1-32 are currently pending and under consideration.

#### Election/Restrictions

2. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-8, drawn to a method of identifying peptides.

Group II, claim(s) 9-13, drawn to a peptide.

Groups IV-X, claim(s) 14, drawn to a peptide with a specific sequence. Please note that each Group is drawn to a unique SEQ ID NO: (e.g. Group IV is drawn to SEQ ID NO: 1, Group V is drawn to SEQ ID NO: 2, etc.).

Groups XI-XIII, claim(s) 15, drawn to a peptide with a specific sequence. Please note that each Group is drawn to a unique SEQ ID NO: (e.g. Group XI is drawn to SEQ ID NO: 10, Group XII is drawn to SEQ ID NO: 11, etc.).

Group XIV, claim(s) 16, drawn to SEQ ID NO: 9.

Groups XV-XLI, claim(s) 17, drawn to a peptide with a specific sequence. Please note that each Group is drawn to a unique SEQ ID NO: (e.g. Group XV is drawn to SEQ ID NO: 13, Group XVI is drawn to SEQ ID NO: 14, etc.).

Group XLII-LVII, claim(s) 18, drawn to a peptide with a specific sequence. Please note that each Group is drawn to a unique SEQ ID NO: (e.g. Group XLII is drawn to SEQ ID NO: 40, Group XLIII is drawn to SEQ ID NO: 41, etc.).

Group LVIII, claim(s) 19, drawn to a method for obtaining phage.

Group LIX, claim(s) 20-21, drawn to a method of initiating deposition or precipitation of an inorganic material.

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Group LX, claim(s) 22, drawn to a nucleic acid.

Group LXI-CXVI, claim(s) 23, drawn to nucleic acids that encode a unique peptide sequence (e.g. Group LXI is drawn to all nucleic acids that encode SEQ ID NO: 1, Group LXII is drawn to all nucleic acids that encode SEQ ID NO: 2, etc.).

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Group CXVII, claim(s) 24-25, drawn to a method for recovering inorganic material.

Group CXVIII, claim(s) 26-29, drawn to a method for delivering inorganic material.

Group CXIX, claim(s) 30-31, drawn to a cartridge comprising a peptide.

Group CXX, claim(s) 32, drawn to a method for identifying peptides.

3. The inventions listed as Groups I-CXX do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The common technical feature is a phage-displayed peptide that binds inorganic material. Phage-displayed peptides that bind inorganic material are known in the art.

Specifically, Hefti (U.S. Patent 6,287,874) teaches various phage-displayed peptides and phage-displayed peptide libraries that can bind inorganic material including metals, gold, copper, silver, zinc, antimony, cadmium, cobalt, lead, silicon, germanium, etc. (please refer to column 5, lines 65-67; column 6; column 7, lines 24-41; column 15, lines 24-67; column 19, lines 31-54; column 44, lines 60-67; column 45, lines 1-9; section XI. Library Synthesis on columns 48-49). Hefti teaches that the ligands may bind directly to the conductive layer (e.g. various metals) and then also bind an additional ligand which can be another metal or inorganic ligand (please refer to column 6, lines 23-45; column 15, lines 24-67). Therefore, the common technical feature of a phage-displayed peptide that binds metals is known in the art.

- 4. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.
- 5. The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and

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specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

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- 6. Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.
- 7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

## Future Communications

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amber D. Steele whose telephone number is 571-272-5538. The examiner can normally be reached on Monday through Friday 9:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Paras can be reached on 571-272-4517. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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ADS June 9, 2006 PETER PARAS, JR.